REMARKS

The Office examined claims 1-17 and rejected claims 10-17. With this paper, reconsideration is requested.

Claim 10 is rejected under 35 USC §112, first paragraph. The Office asserts that "the means in the claim lack an equivalent structure description in the specification."

Claims 10-17 are rejected under 35 USC §101, for allegedly not being directed to statutory subject matter.

The Office responds to applicant's arguments by disagreeing that:

a) the application program interface (API) described in the specification is an "equivalent structure description" to the means of claim 10 (and gives no reason for disagreeing except that "the application program interface itself does not have a corresponding structure description in the specification in either of the forms described");

b) those skilled in the art would understand the API to be software loaded for execution in a process, or alternately, an application specific (integrated) circuit (and again gives no reason for disagreeing except that "the application program interface itself does not have a corresponding structure description in the specification in either of the forms described);

c) the server of claims 11 and 13-17 would be understood by those skilled in the art to be hardware operating according to software (asserting that it could be "just software alone in some instances" and justifying the rejection by noting simply that "there is no description in the specification to support this statement"); and

d) the user equipment terminal of claim 12 is described in the specification to be various devices such as a cellular phone, laptop with mobile terminal, or a mobile router (and gives no reason for disagreeing);

e) the API must be software hosted for execution by hardware, because software alone cannot response to an input (and again gives no reason for disagreeing except for arguing that "nowhere in the specification is there an indication that the API must be software executed by hardware").

The Office concludes with the statement:

> In light of a lack of evidence to support the conclusion that servers and API are understood to be software executed by hardware, the prior rejections under 35 USC §101 & 112 are upheld.

Applicant provides here evidence that the recited servers and application program interfaces would be understood by anyone skilled in the art to be software executed on hardware. Applicant nonetheless urges the Office to consider that the requirement of providing evidence is less than a frugal use of the adjudicatorial resources of the Office, and imposes a burden on the applicant that is unusual and puzzling, in view of the *fairly indisputable* assertions made by applicant.

The recited API is software executed by hardware

Claim 12 recites "a user equipment terminal, comprising: a first application program interface … and a second application program interface … ," and so it is plain to see that whatever the application programming interfaces (APIs) are, they are something included in a UE, and they respond to inputs and provide outputs. This is characteristic of software executed by hardware, and so serves as evidence that, as used in the claims, an API is software executed by hardware.

But further in the way of evidence, the following sources available over the Internet provide an explanation of what is meant, formally, by the term API or "application programming interface."

From Wikipedia, at en.wikipedia.org/wiki/API,

> An application programming interface (API) is a source code interface that a computer system or program library provides in order to support requests for services to be made of it by a computer program.
>
> ...
>
> The *software* that provides the functionality described by an API is said to be an implementation of the API. ...
>
> ...
>
> The term API is used in two related senses:
>
> * A coherent interface consisting of several classes or several sets of related functions or procedures.
>
> * A single entry point such as a method, function or procedure.

From the Gordano knowledge base, at www.gordano.com/kb.htm?q=234,

> An API or Application Programming Interface, allows programmers to access the functionality of a pre-built software module through well-defined data structures and subroutine calls.

From SearchExchange.com, a resource for Microsoft Exchange "professionals," at:

http://searchexchange.techtarget.com/sDefinition/0,290660,sid43_g ci213778,00.html,

> An application program interface (API - and sometimes spelled application programming interface) is the specific method prescribed by a computer operating system or by an application program by which a programmer writing an application program can make requests of the operating system or another application.

As is clear from the above, the term API can refer to software, and applicant presumes that the Office does concede

that software is executed by hardware. The term API can also
refer to the method by which one computer program requests the
services of another, i.e. the rules a programmer must follow in
coding one application in order to request the services of
another. Applicant respectfully submits, though, that it is
plain to see that as used in the application, API is intended to
refer to actual software, i.e. to an implementation of an API.
The description at page 14, beginning line 1, provides that:

> The invention is practiced by a digital communication
> system and a UE communicating via such a communication
> system. The UE can be any of several kinds. In TS
> 33.203, the UE is a mobile terminal MT (cellular
> phone). However, other kinds of UEs can advantageously
> practice the invention as well, including UEs without
> an integral MT component, but attached to an external
> MT, such as a laptop computer attached to a MT or to a
> mobile router, or other devices that communicate with a
> MT. It is important to understand that the list of
> devices given here is not intended to be exhaustive.
> In addition, some devices will not implement the
> complete functionality provided by the invention, but
> will support only a few services/ applications provided
> by the IMS.

Since the invention is, in claim 12, "a user equipment
terminal, comprising: a first application program interface … and
a second application program interface … ," applicant submits
that it is beyond question that API is used in the application as
an actual implementation, i.e. software, executed by a processor
in a UE (such as a laptop computer or cell phone), as opposed to
rules a programmer must follow in coding one application in order
to request the services of another. The latter interpretation is
nonsensical in the context of the invention as set out above. As
illustrative of this interpretation, at page 11, at line 9, the
application explains:

> Once the P-CSCF receives SM5, in a step 34 it parses
> the information and provides from the parsed
> information an Security Policy Database (SPD) entry (or
> entries) (i.e. a policy entry), and inserts the SPD

entry (or entries) into its SPD through a "Security
Policy API" (API being the acronym for Application
Program Interface), which in the Symbian implementation
is named Secpol API, but which in other implementations
could have other names.

So here the P-CSCF, i.e. the proxy call state control function,
uses an API to interface with a security policy database. As
anyone skilled in the art would know, a P-CSCF is not a person,
nor is it software not in a form executable by a processor, i.e.
e.g. on paper; it is software executed by hardware, i.e. it is
software stored so at to be executable by a processor. This
software then uses an API to interface with other software, and
so the API which must therefore be software. Thus, applicant is
using the term "API" to indicate a software module, i.e. software
executed by hardware, that is used for interfacing with another
application.

Further, applicant respectfully submits that instead of
reciting first and second API's, claim 12 might have used any
other label to refer to the software executed by hardware that is
clearly intended by the claim language. Although API is nicely
suggestive of functionality indicated by the recited claim
elements, even "a first module" and "a second module" would
suffice. The functionality and actual structure is recited by
virtue of the recitation of the inputs and outputs, i.e. the
claim elements are recited as responding to the certain inputs by
providing the certain outputs, and thus particular processing is
recited, i.e. the processing required to provide the outputs
given the inputs. This processing is structure, and is clearly
provided by software executed by software. Applicant understands
and believes that the Office will concede that disclosure of the
actual software executed by hardware is not required for
enablement, i.e. in order to disclose structure.

Applicant asserts also that as anyone skilled in the art would understand, any software may be provided by an ASIC, i.e. the effect of software executed on hardware (a digital processor) can be provided instead by an ASIC. Thus, all assertions in the above to the effect that an API is software executed by hardware must be understood to encompass an assertion that an API could include one or more ASICs or be provided entirely as one or more ASICs. Also, as anyone skilled in the art would know, any software can be provided as firmware, i.e. computer chips that have data or programs recorded on them, chips such as ROMs (read-only memory), PROMs (programmable read-only memory), or EPROMs (erasable programmable read-only memory).

The recited server is software executed by hardware (or hardware executing software).

The server of claims 11 and 13-17 is recited as "a home subscriber server."

From Wikipedia, at en.wikipedia.org/wiki/ IP_Multimedia_Subsystem,

> The HSS (Home Subscriber Server or User Profile Server Function UPSF) is the master user database that supports the IMS network entities that are actually handling the calls/sessions. It contains the subscription-related information (user profiles), *performs authentication and authorization of the user, and can provide information about the physical location of user*. It's similar to the GSM HLR and AUC. [Emphasis added.]

So for example, the HSS accepts an input from a UE that is a request to authenticate the identity of the UE, and to do so, as is commonly known, engages in various transactions with the UE in the course of authenticating the UE. Thus, the recited server is understood as a thing that processes inputs and provides outputs. It must thus be understood as software executed by hardware, or

else as hardware operative according to software, either one of which is statutory. It cannot, though, be understood as merely software, i.e. as e.g. a paper copy of software and so not in a form executable by a processor.

The term "server" as used in computing in general is defined in Wikipedia, at en.wikipedia.org/wiki/Server, as

> a computer that provides services to other computers, or the software that runs on it also like the internet sites like Google and Yahoo.

Other interpretations are possible and the claims should still be allowed.

Even if the recited servers and application programming interfaces could be interpreted as merely software, the Office can allow claims 10-17 because the recited language at least encompasses statutory subject matter. The MPEP at 2164.08(b), "Inoperative Subject Matter," provides:

> The presence of inoperative embodiments within the scope of a claim does not necessarily render a claim nonenabled. The standard is whether a skilled person could determine which embodiments that were conceived, but not yet made, would be inoperative or operative with expenditure of no more effort than is normally required in the art. Atlas Powder Co. v. E.I. du Pont de Nemours & Co., 750 F.2d 1569, 1577, 224 USPQ 409, 414 (Fed. Cir. 1984) (prophetic examples do not make the disclosure nonenabling).

Although not squarely on point in regard to the issues at hand, applicant respectfully submits that the MPEP at 2164.08(b) does nonetheless strongly suggest that even though unfavorable interpretations of the claims are possible, if the claim language can be interpreted so as to indicate patentable subject matter, as is the case here for the reasons indicated above, the claims can be allowed.

Accordingly, in view of the above evidence, applicant respectfully requests that all the rejections under 35 USC §101 and §112, first paragraph, be withdrawn.
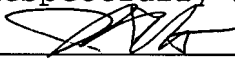
Conclusion

For all the foregoing reasons it is believed that all of the claims of the application are in condition for allowance and their passage to issue is earnestly solicited.

Respectfully submitted,

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